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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,039	09/26/2001	David E. Halasz	72255/10437	9881
23380	7590	08/02/2005		EXAMINER
TUCKER, ELLIS & WEST LLP				AHMED, SALMAN
1150 HUNTINGTON BUILDING				
925 EUCLID AVENUE			ART UNIT	PAPER NUMBER
CLEVELAND, OH 44115-1475			2666	

DATE MAILED: 08/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/964,039	HALASZ, DAVID E.	
	Examiner	Art Unit	
	Salman Ahmed	2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 26 September 2001.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-18 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-18 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 26 September 2001 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/14/2002</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 1, 4, 5, 6, 9, 10, 13, 14 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "said corresponding throughput" in lines 6 and 7. There is insufficient antecedent basis for this limitation in the claim.

Claim 9 recites the limitation "said corresponding throughput". There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "said corresponding throughput" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim 4, 5, 6, 13 and 15 recites the limitation "said throughput time". There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitation "said packet". There is insufficient antecedent basis for this limitation in the claim.

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Claims 2, 3, 7 and 8 are rejected, as they are dependent on independent rejected claim 1.

Claims 11, 12, 16 and 18 are rejected, as they are dependent on independent rejected claim 10.

Claim Objections

2. Claims 6 and 15 are objected to because of the following informalities:

The abbreviations “SIFS” and “DIFS” should be expanded.

Appropriate correction is required.

Allowable Subject Matter

3. Claims 1-18 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Reason for Allowance

4. The following is an examiner’s statement of reasons for allowance: The instant application claims a sampler and a processor applying a method of packet assembly in a wireless transmission system, comprising the steps of sampling at least first and second packets of a plurality of packets; calculating respective throughput times for each of first and second packets, and consolidating first and second packets into a third packet if the sum of corresponding throughput times exceeds a predetermined limit.

The prior arts alone or in combination fail to jointly suggest or teach the claimed combination of features as taught by the instant application. The prior arts do not specifically teach the steps of sampling at least first and second packets of a plurality of packets; calculating respective throughput times for each of first and second packets, and consolidating first and second packets into a third packet if the sum of corresponding throughput times exceeds a predetermined limit. Therefore claims 1-18 are to be deemed allowable over prior art.

Citation of Relevant Prior Art

5. The prior arts made of record and not relied upon are considered pertinent to applicant's disclosure.

The prior art Rajan et al. (US PAT PUB 2002/0196787) teaches an apparatus employing a method for concatenating packets to be transmitted from a first node to a second node, the method comprising the steps of: receiving packets having at least one traffic characteristic from at least one input port; concatenating n received packets to form a concatenated packet; and transmitting the concatenated packet from the first node to the second node, characterized in that the n received packets have a common traffic characteristic and n is determined based on the common traffic characteristic.

The prior art Barri (US PAT 5199027) teaches (column 1 lines 40-47) a processing means to re-calculate total bandwidth at least from individual bandwidth

values contained in maintenance cells transmitted on virtual paths and adjust calculated total bandwidth in function of re-calculated total bandwidth.

The prior art Hiller et al. (US PAT 5327421) teaches a telecommunications switching system, apparatus employing a method for receiving synchronous pulse code modulated (PCM) signals, each signal carrying PCM channels. Each byte of PCM signals is stored in selectable memory locations in buffer memories. Hiller et al. teaches method of adding header data to outputs of buffer memories for forming composite packets, each composite packet comprising bytes from PCM channels of PCM signals. Hiller et al. further teaches method for transmitting periodically composite packets in output signals to a unit for switching packets where the selectable memory locations are selected to group each bytes of channels destined for a common switching system into one composite packet.

The prior art Garcia-Luna-Aceves et al. (US PAT PUB 2002/0154602) teaches (page 1 section 0013) two notable rate-control approaches, the Tri-S scheme and TCP Vegas. The Tri-S algorithm is a rate-based scheme that computes the achieved throughput by measuring the RTT for a given window size (which represents the amount of outstanding data in the network). It compares the throughput for a given window and then for the same window increased by one segment. If the throughput is less than one-half that was achieved with the smaller window, they reduce the window by one segment. TCP Vegas tries to prevent congestion by estimating the expected

throughput and then adjusting the transmission window to keep the actual observed throughput close the expected value.

IEEE publication "Scaling CSMA/CD to 1 Gb/s with frame bursting", Molle, M., Kalkunte, M., Kadambi, J. Local Computer Networks, 1997 teaches frame bursting method where (page 213) the sender can transmit several frames, separated by extended carrier, in a single burst. However, the maximum burst length is based on the maximum frame size instead of the slot time. The condition for including another frame into an ongoing burst is based on two tests. First, the starting time for the next frame must occur before the burst timer reaches a certain cutoff value. Second, the next frame must be available for transmission by the end of the interframe gap period. Initially, the burst limit was set at 12,000 bit times, which was deliberately chosen to be just below the maximum frame length to promote fairness.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Salman Ahmed whose telephone number is (571)272-8307. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571)272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Salman Ahmed
Examiner
Art Unit 2666

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DANG TON
PRIMARY EXAMINER